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World Financial Markets

Morgan Guaranty Trust Company of New York

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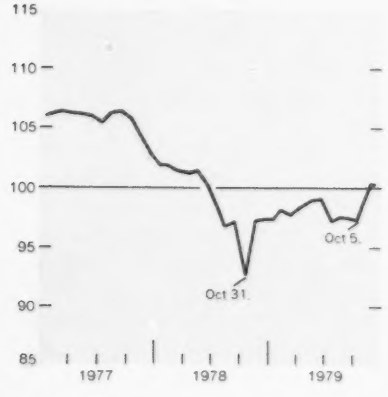
monthly averages, index, March 1973=100



Latest plotting November 23

Foreign exchange market developments

The dollar has been rather resilient in the wake of events in Iran. In the three weeks to November 26 it dropped 2% *vis-à-vis* the German mark and 3½% against sterling, but it strengthened 6% against the yen. On a trade-weighted average basis the dollar was practically unchanged. Part of the dollar's weakness with respect to the mark was due to a considerable decline in U.S. short-term interest rates.

The significance of Iran as a trading partner of the United States and the world has lessened substantially since its revolution in the fall of 1978. U.S. nonmilitary exports to Iran dropped sharply, from a $3.7 billion annual rate in January-September 1978 to a $1.2 billion rate in the corresponding months of 1979, or about 1% of total U.S. nonmilitary exports. This did not result in a significant decline in U.S. market share, however, as other industrial countries experienced comparable reductions in their shipments to Iran. Military exports also are estimated to have dwindled, from approximately $2.5 billion in 1978 to less than $0.5 billion at an annual rate in the first nine months of this year.

Furthermore, Iran's oil exports declined from 5.2 million bpd to about 3 million bpd. As a result, Iran's share of OPEC oil exports to the world dropped from one sixth prior to the revolution to one tenth at present, and the proportion of total free-world consumption that Iran supplies dropped from 10% to 6%. The United States had been taking slightly less than 25% of total Iranian oil exports, which constituted some 8½% of total U.S. petroleum imports and 4% of total U.S. consumption. To the extent that the cutoff of Iranian oil shipments to the United States should lead to a net reduction in domestic petroleum availability and inconvenience for the U.S. public, it would underscore the seriousness of the energy situation in the United States, thereby encouraging energy conservation.

The blocking of Iranian government assets in the United States and in the overseas branches of U.S. banks is a step that could have significant financial implications. If it leads Iran to accept payment only in currencies other than the dollar, the international transactions role of the dollar will be reduced and that of other currencies will be increased. Furthermore, blocking makes it less likely that Iranian government assets, once placed in cur-

Table 1

Exchange rate changes for the dollar

in percent, based on exchange rates expressed in U.S. cents per foreign currency units

	Oct 31, 1978 to Nov 26, 1979	Oct 5, 1979 to Nov 26, 1979
Dollar vis-à-vis:		
Japanese yen	28.6	10.8
German mark	—0.3	—0.7
Swiss franc	10.1	4.2
British pound	—4.3	1.0
French franc	2.2	—1.4
Italian lira	3.6	0.7
Dutch guilder	3.3	0.3
Canadian dollar	0.4	0.5

Table 2

Short-term interest rates

in percent

	end-Sep 1979	mid-Nov 1979
United States		
Federal funds	11.61	12.37
3-month domestic CDs	12.10	13.85
3-month commercial paper	11.95	13.97
3-month euro-dollar deposit	12.75	14.44
Germany[a]	7.90	9.40
Japan[b]	7.12	7.81
Switzerland[a]	1.62	4.00
France[a]	11.62	12.87
United Kingdom[a]	14.06	17.06

a 3-month interbank deposit
b 3-month repurchase agreement

rencies other than the dollar, would be moved into dollars. Hence, the international reserve currency role of other currencies also could be increased, a desirable development that has been strongly resisted so far by the monetary authorities of other major industrial countries. In view of the widespread appreciation abroad of the very unusual circumstances surrounding the blocking, it is doubtful whether Iran's apparent refusal to accept dollars in payment for its oil will spread to many other countries.

The dollar in retrospect

Since the United States took decisive action to support the dollar by means of the defense package of November 1, 1978, the dollar has risen about 7½% on a nominal as well as real effective basis (see chart). Table 1 shows that the dollar appreciated sharply, in particular *vis-à-vis* the Japanese yen (29%) and the Swiss franc (10%), while the movements against most other currencies were comparatively modest (less than 5%).

The past year has witnessed significant swings in net private capital flows *vis-à-vis* the United States. In the first five months of 1979 there were inflows in excess of $30 billion, or approximately double the net outflows that occurred in late 1978. Increased confidence in the dollar triggered a major reversal of leads and lags in commercial payments, and the widening of interest rate differentials induced inflows of interest-sensitive funds. U.S. swap liabilities to foreign monetary authorities were at least temporarily paid off in full by May.

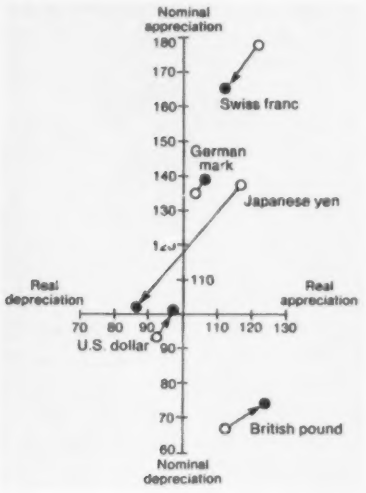
By last June confidence in the dollar had diminished because of the failure of U.S. inflation to slow and because of the narrowing of the interest-rate differentials that occurred as foreign interest rates rose while U.S. rates leveled out. Accordingly, net private capital outflows recurred, albeit only in a relatively moderate amount of about $5 billion, between late June and early October.

Since October 6, however, net private capital inflows appear to have resumed, perhaps totaling $6-$7 billion in the past six weeks or so. These inflows have been stimulated by the sharp rise in U.S. interest rates. Short-term interest rates in the United States, such as those for three-month CDs and commercial paper, have risen by about 200 basis points since the end of September. Euro-dollar rates have risen even more. Interest rates also have risen sharply in most other major countries, as authorities have likewise tightened monetary policies to combat accelerating domestic inflation. Nevertheless, the interest-rate differentials favoring the United States *vis-à-vis* Germany and Japan have widened (see Table 2). Of at least equal importance is the fact that since the Federal Reserve's latest measures U.S. interest rates have reached, for the first time in a long while, levels that are positive in real or inflation-adjusted terms.

The recent turnaround in private capital flows was accompanied by a decline of $9½ billion in the foreign official holdings of U.S. Government marketable and nonmarketable securities in the six weeks to November 21. To a large extent this reflected large reserve losses by several countries that made substantial dollar sales to support their own currencies. Japanese intervention in October was $2½ billion, and it may have exceeded that amount so far in November. Canada's reserves dropped by almost $600 million in October and British net dollar sales exceeded $400 million, but intervention by those two countries

Nominal and real effective exchange rates

○ October 31, 1978 ● November 23, 1979
index, March 1973=100



Real effective exchange rates

monthly averages.
index, March 1973=100

Latest plotting November 23

seems to have lessened appreciably in November. The drop in U.S. liabilities also was a consequence of large-scale dollar swap transactions (over $3 billion) between the Bundesbank and German commercial banks for domestic monetary policy purposes.

The performance of the dollar in the past year has benefited from both a shift in U.S. government attitudes toward the dollar and the relatively favorable development of the U.S. current account. The actions of November 1978 and October 1979 reflected increased determination to defend the dollar. In November 1978 the defense package emphasized official intervention with monetary policy playing a subordinate role. The October 6 measures, in contrast, focused on domestic monetary policy. The latter, while clearly not signaling an abandonment of the U.S. commitment, when necessary, to intervene heavily in support of the dollar, amounted to an acknowledgment that intervention alone was insufficient to assure sustained dollar stability and that a greater effort would have to be exerted to deal with accelerating domestic inflation and inflationary expectations.

These actions would have had much less chance of stabilizing the dollar, however, without the improvement in the U.S. current account situation. The U.S. current account deficit, which began to narrow after early 1978, has continued to do so this year. The deficit fell from a $27 billion seasonally-adjusted annual rate in early 1978 to near-equilibrium in the second and third quarters of 1979. This improvement occurred despite a more than $20 billion annual-rate increase in net oil imports between the first quarter of 1978 and the third quarter of 1979. The United States has experienced large gains in net agricultural and manufactures trade as well as in net direct investment income.

At the same time, the payments positions of Japan and Germany have weakened dramatically. Japan's current account balance swung from a seasonally-adjusted annual-rate surplus of $20 billion in the first half of 1978 to a deficit at a rate of $15 billion in the third quarter of this year. Germany's balance also deteriorated substantially, from a surplus of more than $10 billion at an annual rate to a deficit of $6 billion between the second half of 1978 and the third quarter of 1979.

The dramatic shifts in payments positions in these three countries were in large part the consequence of changes in relative rates of economic growth and of the lagged influence of earlier changes in real effective exchange rates. Real GNP growth in the United States slowed from rates of 5.3% in 1977 and 4.4% in 1978 to the present near-stagnation, while the weighted-average rate of expansion in other industrial countries accelerated from less than 3% in 1977 to 3.5% in 1978 and to an estimated 3.6% this year. Japan and Germany, in particular, are experiencing relatively strong growth this year, estimated at 6% and 4¼%, respectively. The exchange-rate adjustment between the dollar and the yen had been especially large. As shown in the chart, the yen experienced a real effective appreciation of more than 30% between the end of 1976 and October 1978, although it is now entirely reversed.

While the relative U.S. current account performance has improved very substantially, relative U.S. price performance has remained about the same. Although the twelve-month rate of increase in U.S. wholesale prices of manufactures accelerated from about 8% in the fall of 1978 to nearly 13% in the three months ended October 1979, price inflation abroad has risen to

Table 3

Implications of a $30 per barrel oil price in 1980

	1978	1979	1980
OPEC effective weighted average oil price (dollars per barrel)	13	19	30
(percent change from previous year)	0%	48%	58%
OPEC oil revenues (billions of dollars)	126	186	278
OPEC current account surplus after transfers (billions of dollars)	1	50	90
Net oil imports (billions of dollars)			
United States	40	60	88
Japan	26	39	59
Germany	15	23	35
Current account balances (billions of dollars)			
United States	—14	—2	—10
Japan	17	—8	—18
Germany	9	—1	—6

an even greater extent. Thus, the adverse differential for the United States versus the weighted average of its trading partners has narrowed slightly from around 2% a year ago to approximately 1% currently.

The outlook

During the next six to nine months the dollar is likely to continue benefiting from the same factors that have bolstered it over the past year: relatively favorable current account developments and a willingness of the United States to take actions to defend the dollar. However, several clouds are overhanging the exchange markets, including the unsettled conditions in the world oil markets and the potentially disruptive effects of currency diversification.

The oil demand and supply situation remains very tight. Although free-world oil production (OPEC plus non-OPEC) is currently running slightly above free-world consumption, demand for stockpiling remains strong, putting pressures on supplies. With the unsettled political situation in the Middle East, the possibility of a disruption of production in Iran or some other OPEC nation, and the threats of production cutbacks by other OPEC members, there remains a precarious balance. As a result, oil prices are continuing to escalate. The weighted-average effective OPEC price (official plus spot) has now reached about $24 per barrel, more than 80% above fourth-quarter 1978 levels. At the upcoming December OPEC meeting a move towards unification and a further rise in official OPEC prices are expected.

With the current relatively favorable world oil inventory situation and the prospective weakening of world economic activity, it is possible for the *effective* average oil price to stabilize between $25 and $30 per barrel in 1980. But in view of the unstable conditions in the Middle East and prospective oil-output cutbacks, it is more likely that the effective price of oil will average at least $30 per barrel next year, a price that would be nearly 60% above the effective average level for the whole of 1979.

At a $25-per-barrel average price next year, the OPEC current account surplus after transfers would amount to an estimated $60 billion. However, as shown in Table 3, with a $30-per-barrel 1980 oil price, the OPEC current account surplus after transfers would increase to approximately $90 billion, as the absorptive capacity of OPEC countries would not change much in the short run. Also, the net oil imports of the three leading industrial countries would rise sharply again next year. For the United States, the projected $28 billion increase in net oil imports would probably prevent the current account from moving into surplus next year from this year's

Table 4

U.S. current account

in billions of dollars

	1978	*1979*	*1980*
Trade balance	—34.2	—29.5	—40.0
Net oil imports	—40.4	—60.0	—88.0
Manufactures trade	—4.8	10.0	23.0
Net agricultural exports	14.5	20.0	22.0
Other trade[a]	—3.5	0.5	3.0
Direct investment income	21.7	28.5	30.5
Other services and transfers	—1.4	—1.0	—0.5
Current account balance	—13.9	—2.0	—10.0

a includes nonagricultural raw materials and balance of payments adjustments to customs trade figures

modest deficit. Under the $30 average OPEC price scenario, the U.S. current account deficit could rise to some $10 billion in 1980, despite further substantial gains in net manufactures trade as well as additional improvements in agricultural exports and net direct investment income (see Table 4).

The prospect of a widening of the U.S. current account deficit next year ordinarily would not bode well for the dollar. However, as shown in Table 3, under the $30 average oil price assumptions Japan and Germany also will experience large increases in net oil imports and deteriorating current account positions, as will nearly all other industrial countries with the exceptions of the United Kingdom and Norway. Japan's current account deficit could widen from an estimated $8 billion or so this year to as much as $18 billion in 1980. Germany's current account, which is likely to move into a deficit of $1 billion or more this year, could deteriorate to a deficit of perhaps $6 billion in 1980. Thus, in the context of weakening current accounts in virtually every other major-currency country, the U.S. position need not necessarily lessen the prospects for continued relative dollar stability.

The prospect of further sharp increases in oil prices lessens the likelihood of an early, significant slowing in overall U.S. inflation. The combination of a $30-per-barrel average effective OPEC oil price and the scheduled decontrol of domestic crude oil prices could add approximately 3½-4 percentage points to the rate of increase in both U.S. consumer prices and wholesale prices of manufactures next year. This would be above the rise that could be expected if oil prices were unchanged from this year's level. Thus, the rate of increase of U.S. wholesale prices of manufactures, which is currently running about 13% on a twelve-month basis, could well remain in the double digit range, despite the relief on price pressures that can be expected as a consequence of recession in U.S. economic activity. However, with most other industrial countries also experiencing strong upward price pressures from energy and other sources, the U.S. adverse inflation differential could even narrow slightly in 1980. This implies that on balance there would be very little, if any, erosion of U.S. industries' international price competitiveness *vis-à-vis* other major trading nations.

Thus, prospective U.S. current account and inflation developments, particularly in relative terms, are likely to be stabilizing forces for the dollar in the period ahead. However, the dollar remains vulnerable to pressures arising from reserve diversification. In order to temper such pressures, it will be important to maintain confidence in the dollar and to ensure that dollar assets provide an attractive rate of return. Confidence in the dollar will depend, in part, on the continued resolve of the U.S. government to fight inflation in the face of weakening domestic economic activity. The continuance of positive real interest rates in the United States also will be significant. The Federal Reserve Board chairman has stressed repeatedly that U.S. interest rates are unlikely to decline significantly until the economy weakens further and inflation subsides meaningfully.

These factors notwithstanding, the prospect of large OPEC current account surpluses this year and next, which could boost the aggregate public- and private-sector net external assets of OPEC countries from an estimated $160 billion at the end of 1978 to approximately $300 billion by the end of 1980, makes efforts to find an orderly, off-market mechanism for channeling at least some reserve diversification all the

Table 5

U.K. consumption and production of petroleum

in millions of metric tons

	Consumption	Production	Production as % of consumption
1975	93.3	1.6	1.7
1976	92.5	12.2	13.2
1977	92.9	38.3	41.2
1978	94.3	54.0	57.3
1979 (est)	96.0	77.0	80.0

more urgent. The recent Swiss move to permit the World Bank to issue Swiss franc-denominated notes to foreign central banks is a significant first step toward orderly accommodation of diversification moves. Reportedly, the Swiss National Bank also is studying the possibility of taking Swiss franc deposits from foreign central banks and issuing its own paper to them. However, until more progress is made along these lines, involving other major-currency countries as well, there remains the potential for significant exchange-rate pressures on the dollar if OPEC and other countries pursue diversification away from the dollar.

The end of British exchange controls

Last month Britain announced the end of forty years of exchange controls, making U.K. residents completely free to invest and borrow abroad and giving nonresidents complete access to U.K. credit markets. The policy of progressively relaxing controls had been put forth in the new Conservative government's first Budget Speech in June. At that time some restrictions were eased, principally those governing the financing of overseas direct investment. In July, controls on direct investment were effectively eliminated and a start was made on the freeing of portfolio investment overseas. Nonetheless, the complete elimination of controls came earlier and was much more sweeping than most observers had expected.

The bold move of abolishing controls is an integral part of the government's strategy of reducing government interference and strengthening the free-market economy. The step was also necessary to fulfill Britain's EEC membership obligations. Furthermore, it had become clear that the controls had outlived their usefulness and that the increasing contribution of North Sea oil to the balance of payments required a new approach to exchange-rate policy.

As shown in Table 5, Britain's domestic production of petroleum has grown rapidly since 1975. From less than 2% of domestic consumption in 1975, production has increased to about 80% during 1979. By 1980 production should approximately equal consumption, and beyond next year the country has the capacity to become a modest net exporter.

This increasing production has coincided with a rapid rise in the price of oil, and price increases for the high-quality North Sea crude have been particularly large. During 1979 the gross value of North Sea oil and gas output will total about $22 billion. The contribution to Britain's current account from reduced net imports of oil, shown in Table 6, will total nearly $18 billion. A further large increase in this contribution seems certain in 1980.

With controls limiting capital outflows from the United Kingdom and interest-rate levels generally above those in other countries, the contribution of North Sea oil to the current account and sterling's psychological attraction as a "petrocurrency" in the exchange markets had produced a substantial real effective appreciation of sterling (see chart). So long as controls were retained, the authorities had two un-

Table 6

Balance of payments contribution of North Sea oil and gas

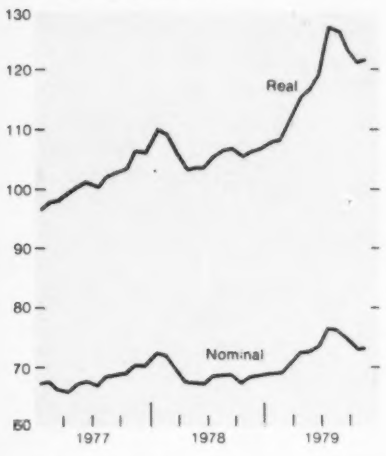
in billions of dollars

	1975	1976	1977	1978	1979 (est)
Value of output	3.3	4.3	7.9	10.0	22.2
Net imports of related goods and services[a]	—1.8	—2.2	—2.1	—1.3	—1.7
Interest, profits, dividends due overseas	—	—	—0.7	—1.2	—2.5
Net contribution to current account	1.6	2.2	5.1	7.5	17.9

a excluding interest, profits, dividends

Nominal and real effective exchange rate of sterling

monthly averages, index, March 1973=100



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welcome alternatives: to accept a higher sterling rate and the resulting erosion of competitiveness in the non-oil trade sector, or to intervene in the foreign exchange markets and risk the resulting domestic monetary expansion with its inflationary implications. The elimination of exchange controls to some extent avoids these alternatives by allowing larger private capital outflows. These would tend to offset the effects of North Sea oil on the exchange rate for sterling and permit the buildup of net assets abroad from which Britain could benefit in the future. Thus, some of the benefits that might otherwise be consumed would be invested, albeit in other countries.

The need to act had become more apparent in recent months. The competitive pressures on exporters were of increasing concern, especially in light of the sharp deterioration in the non-oil trade balance this year. The balance is expected to show a deficit of about $5 billion in 1979, compared with a $1 billion surplus in 1978. By mid-October 1979 the real effective exchange rate for sterling had risen about 22% above its average level during 1973-77. Moreover, the large projected inflation differential with its trading partners would aggravate further Britain's competitive problems in industry. Finally, sterling's status as a petrocurrency and the demand for sterling that is likely to be associated with the investment of large OPEC surpluses offered the possibility of further large net capital inflows. This situation afforded the authorities an excellent opportunity to express their free-market economic philosophy by the complete elimination of controls.

Balance of payments and exchange rate effects

The magnitude of the newly permitted capital outflows should be modest in the short run. There were some outflows — perhaps $1 billion — following the first two rounds of controls relaxation, particularly the second one. In large part these outflows were related to the unwinding of special transactions undertaken specifically because of exchange controls (e.g., foreign currency loans obtained to finance foreign securities purchases). Since the abolition was not generally expected, it will take some time for the market to respond to the new opportunities. Furthermore, foreign borrowing in the United Kingdom will be limited by high domestic interest rates, particularly in the aftermath of the November 15 increase in the Bank of England's minimum lending rate to a record 17%, and by the extension of quantitative limits on the growth of banks' liabilities and, hence, their capacity to lend. Indeed, U.K. residents may find it attractive to borrow abroad, thereby generating capital inflows. Moreover, U.K. residents may not find investment opportunities abroad particularly attractive at the present time, partly in view of uncertain interest-rate and stock market outlooks abroad.

Over the next year and beyond, of course, the scope for capital outflows is large. One important potential source is increased portfolio investment by institutional investors. For instance, a decision by U.K. insurance companies and pension funds to increase the share of overseas equities in their portfolios from the current 3% to 5% would imply an outflow of roughly $3½ billion. Moreover, with an institutional cash flow of $20 billion or more per year, ongoing purchases could be large. Foreign equity purchases may be supplemented by substantial institutional investment in foreign fixed income securities, which were effectively discouraged by controls.

There also will be some increase in portfolio investment abroad by private individuals.

In addition to exerting eventual downward pressure on the exchange rate, the end of controls will tend to increase the sensitivity of capital flows to developments in Britain and abroad. In part this reflects the greater ability of U.K. residents to act on interest-rate differentials and exchange-rate expectations. Moreover, since U.K. companies can now repatriate foreign exchange earnings at a time of their own choice, the potential size of leads and lags has been increased. At the same time, there is likely to be an increase in the volume of exchange market activity involving sterling. The authorities have eased the tight limits on the banks' foreign exchange positions.

Implications for monetary policy

The end of exchange controls has given a new urgency to the review of monetary policy. Even before controls were abolished, the question of modifying Britain's system of domestic monetary control was receiving increasing attention. In their efforts to control money supply growth, the authorities have during several periods, including the present, supplemented interest-rate policy with a "corset." The corset consists of marginal reserve requirements on increases in banks' interest-bearing liabilities beyond an allowed 1% per month from a base period. In anticipation of the imposition of the corset, the banks had built up their base of interest-bearing liabilities and subsequently have developed some methods of blunting its impact. This has had the effect of distorting the measurements of monetary aggregates, and these problems have been exacerbated by the end of controls.

While the corset still confines growth in the banks' liabilities and, hence, lending, it does not apply to nonbanks. These can now borrow abroad either in foreign currencies or in sterling. This would imply a decreasing effectiveness of the corset and an increase in the reliance on interest-rate policy to curb credit. Another possible development would be the creation of a commercial paper market in Britain similar to the one in the United States.

While the government, on November 15, extended its current 7%-11% per annum money-supply (M3) growth target to October 1980 and extended the corset through next June, ways of modifying the existing monetary control system will be under intense study. The leading candidate to replace it is a system that relies principally on the Bank of England's control of the monetary base. Such a system, akin to that adopted by the Federal Reserve in the United States last month, offers the opportunity to control more directly the growth of the money supply. However, it will do nothing to lessen the greater reliance on interest rates that the end of controls implies.

Financial markets and the reserve role of sterling

London has long been a leading financial center, but exchange controls largely confined London's role to that of an arranger of financing as distinct from an ultimate provider of funds. The end of exchange controls now permits an enlarged role as an ultimate provider of funds, both sterling and foreign currency. One important possibility is the resumption of financing of third-country trade. As noted earlier, the growth of sterling borrowing by foreigners may be slow for a time, given the current configura-

tion of interest rates and the extension of the corset, but such transactions could grow rapidly in the future. Thus far, only one Euro bond issue — a DM 100 million issue of ten-year bonds by the European Investment Bank — has been placed in the London market since the controls were abolished.

There also may be changes in other markets. For example, the posssibility of setting up a gold futures market in Britain had been under discussion even before the end of controls. The lifting of the ban on U.K. citizens' trading in gold should give a boost to such plans if gold trade is not subjected to the current 15% value-added tax. The increased market for foreign securities also may shift some foreign shares trading to London.

There are likely to be changes in the Euro-sterling market as a consequence of the abolition of controls. Centered in Paris, Amsterdam, and Brussels, this market has remained relatively small with deposits of only about $13 billion as of June 1979, although growth has accelerated in the past year. Under controls, Euro-sterling deposits were essentially limited to those of nonresidents willing to hold sterling. Euro banks are now free to seek deposits in the domestic U.K. market. This has resulted in more arbitrage between the two markets, and the narrowing of interest rate differentials. Since U.K. banks receive interest on their reserve requirements, the spread between U.K. domestic and Euro-sterling rates should become even narrower than that between U.S. domestic and Euro-dollar rates. This would be consistent with the Bank of England's view that the Euro-currency market is not independent of domestic banking systems and that, if capital flows are unrestricted, interest rates in the two markets are very closely related.

As long as the corset continues in operation, however, it will limit the ability of U.K. banks to place funds in the Euro-sterling market. Moreover, Governor Richardson has called on the banks not to avoid the impact of the corset by directing their customers to their offshore branches. As a consequence, in the short term the growth of the Euro-sterling market may be slowed and interest rate differentials may be wider than expected. Over the longer run, however, the market could grow rapidly. This is particularly true if the authorities persist in their efforts to limit official holdings of sterling in the domestic market.

The further opening of Britain's financial markets to foreigners and sterling's status as a petrocurrency have raised the question of a resumption of sterling's role as a reserve currency. During the 1970s Britain ran down its traditional reserve role, in both absolute and relative terms. Thus sterling's share of aggregate reserve assets has fallen from nearly 15% at the start of the decade to only 1%-2% more recently. This culminated in the 1976 Basle arrangement to provide official holders with the opportunity to convert their sterling holdings into foreign currency bonds, and about £400 million was converted to U.S. dollar, German mark, Swiss franc, and yen denominated bonds. At the same time, U.K. authorities sought agreement from former sterling area members and others not to add to their reserves in sterling. Since that time official sterling balances in the United Kingdom have been relatively steady, generally remaining between £2.4 and £3.0 billion.

The Bank of England has stated that the abolition of exchange controls in Britain does not imply any change in policy toward official sterling balances or the resumption of a reserve currency role. It has also contacted other central banks to reaffirm the continuance of its policy, and declared that this policy "is clearly in the wider international interest." The end of controls in Britain, as noted, comes when some foreign central banks and governments are seeking to diversify their reserve holdings. Sterling would seem a logical candidate for an enlarged role as a reserve currency given Britain's well-developed money and capital markets. To frustrate the demand for sterling from official holders would only tend to stimulate the growth of the Euro-sterling market outside the direct control of the Bank of England.

Statistical appendix

for key to data in tables see pages 18 and 19

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Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates

Index numbers, March 1973=100. The index of the effective exchange rate for a currency is a measure of that currency's trade-weighted average appreciation or depreciation vis-à-vis the currencies of 15 other major countries. The exchange rates used in the construction of this index are the averages of daily noon spot exchange rates in New York for months and for weeks ending on dates shown. The trade weights used are based on 1976 bilateral trade in manufactures.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
pre-June 1970 parities	118.5	94.9	79.3	116.2	91.6	97.5	110.9	95.9	98.2	88.3	97.8	97.9	98.1	102.2	92.2	98.4
Smithsonian central rates	107.0	101.3	88.7	116.0	95.4	96.1	108.3	97.0	99.1	91.6	98.0	96.0	96.3	100.5	91.7	98.1
1978																
November	97.2	83.9	132.5	68.1	133.8	90.0	55.7	111.4	118.7	169.6	116.5	102.3	103.7	88.0	74.5	73.3
December	97.5	83.4	129.6	68.8	135.0	90.3	55.2	111.2	119.2	168.3	116.9	102.0	102.4	87.4	74.5	73.0
1979																
January	97.5	82.6	127.9	68.8	135.5	90.8	55.0	111.8	120.0	166.7	117.4	103.2	102.2	87.0	74.3	73.4
February	98.1	82.2	126.4	69.0	135.6	90.4	54.9	111.9	119.9	166.9	117.4	103.3	101.9	87.0	74.1	74.4
March	97.9	83.8	122.7	70.4	135.5	90.2	54.9	111.4	119.9	166.5	117.2	102.4	102.1	87.1	73.8	74.9
April	98.3	86.0	117.4	72.5	134.5	89.8	55.5	110.5	118.9	164.8	116.5	101.7	102.2	87.5	74.0	76.8
May	99.0	85.4	116.7	72.5	134.9	89.3	55.4	109.6	118.3	165.1	116.3	100.2	102.0	88.2	74.2	79.7
June	99.1	84.1	116.1	73.9	135.5	89.4	55.2	109.6	117.6	166.3	116.3	98.2	101.7	88.5	74.2	79.0
July	97.3	84.2	115.7	77.3	136.0	89.1	55.4	110.1	117.3	166.3	116.7	98.6	100.6	88.2	73.7	76.9
August	97.7	83.8	115.1	76.6	135.9	89.1	55.6	110.1	117.6	165.8	117.3	98.3	101.2	88.5	74.0	77.2
September	97.6	84.2	112.3	74.5	137.1	89.4	55.4	110.5	118.2	168.8	119.4	99.1	101.6	88.3	74.3	76.6
October	98.9	83.7	108.8	73.0	138.3	90.0	54.6	110.9	118.0	167.7	120.6	98.8	102.7	88.5	74.7	77.0
5	97.3	84.3	110.8	73.2	138.6	90.0	54.7	110.9	118.1	170.9	120.7	99.1	102.6	88.4	74.3	75.9
12	98.4	83.8	110.6	73.5	138.2	89.9	54.4	110.5	118.0	168.6	120.3	98.5	102.6	88.6	74.6	76.9
19	99.2	83.6	108.3	73.5	138.1	89.8	54.6	110.9	118.0	167.2	120.5	99.0	102.8	88.4	74.8	77.3
26	99.9	83.3	107.3	72.6	138.2	90.0	54.8	111.2	117.9	165.4	120.7	98.8	102.6	88.6	74.9	77.6
November 2	100.3	83.3	106.4	71.2	138.8	90.5	54.6	110.9	118.2	166.3	121.0	98.3	103.1	88.7	75.0	77.5
9	100.5	83.2	104.7	71.5	139.0	90.4	54.7	111.0	118.4	167.2	121.4	98.5	102.6	88.6	74.9	77.1
16	100.6	83.4	102.2	72.9	139.4	90.6	54.5	110.7	118.2	166.0	121.2	98.5	101.9	88.2	74.8	76.9
23	100.0	83.8	101.2	73.8	139.9	90.8	54.3	110.9	118.0	165.2	121.4	98.9	101.6	88.2	74.6	76.6

Real effective exchange rates

Index numbers, March 1973=100. The index of the real effective exchange rate is the index of the effective exchange rate adjusted for inflation differentials which are measured by wholesale prices of nonfood manufactures. Exchange rates and trade weights used in the construction of this index are the same as those used for effective exchange rate indices. Annual figures are averages of months.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
1975	98.6	102.4	87.9	104.6	100.4	102.5	97.6	98.1	100.0	106.3	103.5	95.6	97.0	106.3	100.8	106.7
1976	100.0	106.6	89.0	96.7	101.1	99.8	92.9	97.8	101.7	110.7	106.0	96.1	98.9	108.9	101.5	105.1
1977	99.7	99.8	94.8	101.5	102.4	96.1	95.5	99.7	103.8	105.3	109.2	97.3	99.7	105.0	91.5	101.0
1978	95.0	92.8	109.0	106.2	103.3	96.7	93.7	99.6	103.6	121.9	109.2	103.4	95.4	96.5	86.7	96.9
1978																
November	93.9	90.9	112.8	106.2	104.4	96.9	92.3	100.0	103.0	121.8	108.4	105.7	94.6	96.5	85.3	100.9
December	94.6	90.1	109.8	107.2	105.2	97.3	92.0	99.6	103.1	120.3	108.7	104.7	93.9	96.0	85.5	100.9
1979																
January	94.4	90.5	107.7	107.8	104.8	98.5	92.4	99.7	103.7	118.0	109.6	105.3	92.8	95.9	85.4	101.3
February	94.6	91.0	106.2	108.7	104.6	98.3	92.3	99.4	103.3	118.2	109.1	104.9	91.6	97.4	85.8	103.0
March	94.3	92.8	103.2	111.2	104.6	98.3	92.4	98.8	102.6	117.6	108.2	104.7	91.7	97.3	85.7	105.0
April	94.7	95.5	98.6	115.6	103.4	98.0	93.7	97.7	101.6	115.7	107.1	103.0	92.0	97.7	85.6	108.8
May	95.8	94.4	98.1	116.5	103.4	98.0	93.7	96.7	100.4	115.2	106.3	102.1	91.6	99.0	84.1	113.4
June	96.1	92.6	97.7	119.9	103.7	98.0	93.1	96.3	99.5	116.8	106.1	100.0	90.3	99.9	83.8	112.4
July	94.1	92.7	97.9	127.6	103.8	98.0	93.2	96.9	98.1	115.7	106.2	101.6	88.1	99.8	83.0	110.6
August	94.6	92.2	97.9	126.8	103.5	98.3	94.2	96.1	98.0	113.9	106.2	102.2	88.5	100.2	83.6	111.0
September	94.7	92.8	95.5	123.7	104.2	99.0	95.2	94.7	98.4	115.7	107.5	103.5	88.5	100.6	83.0	110.8
October	97.2	91.1	92.2	121.1	104.9	99.8	93.2	95.7	97.4	113.6	108.6	104.2	88.5	101.0	82.8	112.0

Euro-currency market size

based on foreign-currency liabilities and claims of banks in major European countries, the Bahamas, Bahrain, Cayman Islands, Panama, Canada, Japan, Hong Kong, and Singapore
billions of dollars (rounded to nearest $5 billion), at end of period

	1971	1972	1973	1974	1975	1976r	1977r	1978r	1979		
									Marr	Junr	Sepp
Estimated size											
Gross	145	200	305	375	460	565	695	895	895	965	1050
Liabilities to nonbanks	30	35	55	75	80	100	125	170	185	200	n.a.
Liabilities to central banks	15	25	40	60	70	85	110	120	125	130	n.a.
Liabilities to other banks[a]	100	140	210	240	310	380	460	605	585	635	n.a.
Net	85	110	160	215	250	310	380	485	500	530	580
Claims on nonbanks	35	45	65	100	115	150	195	245	255	265	n.a.
Claims on central banks and on banks outside market area[b]	35	45	75	95	115	135	155	195	200	220	n.a.
Conversions of Euro funds into domestic currencies by banks in market area[c]	15	20	20	20	20	25	30	45	45	45	n.a.
Euro-dollars as % of gross liabilities in all Euro-currencies	76	78	73	77	78	79	76	74	74	73	n.a.

a Includes unallocated liabilities
b Includes unallocated claims
c In European market area only
r revised
p preliminary

Euro-currency deposit rates

prime banks' bid rates in London, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Euro-dollar:											
overnight	4.63	7.12	10.62	10.12	10.12	10.00	10.37	10.75	11.25	11.75	14.25
7-day fixed	4.75	6.31	10.62	10.25	10.12	10.12	10.50	10.87	11.37	11.87	14.37
one month	5.13	6.87	11.00	10.25	10.44	10.25	10.81	10.94	11.75	13.00	15.06
three months	5.00	7.19	11.69	10.50	10.75	10.44	10.50	11.31	12.12	12.75	15.69
six months	5.38	7.50	12.31	10.56	11.06	10.62	10.50	11.12	12.12	12.75	15.31
twelve months	5.56	7.67	12.00	10.56	10.87	10.44	10.19	10.81	11.69	12.19	14.25
Euro-mark:											
one month	4.62	2.19	3.19	4.75	5.12	5.62	6.12	6.19	7.25	7.19	8.12
three months	4.69	2.50	3.31	4.94	5.44	6.12	6.19	6.50	7.44	7.44	8.94
six months	4.75	2.81	3.69	5.37	5.87	6.75	6.62	6.94	7.62	7.50	8.87
twelve months	4.81	3.06	3.81	5.50	6.25	7.06	6.87	6.94	7.62	7.50	8.62
Euro-Swiss franc:											
one month	0.94	1.31	—.06	0.25	1.31	1.75	0.94	1.31	1.87	1.06	2.94
three months	1.44	1.37	0.00	0.37	1.56	1.94	0.19	1.44	1.00	1.75	4.00
six months	2.12	1.87	0.12	0.87	2.50	2.75	1.81	2.31	2.69	2.00	4.50
twelve months	2.50	2.25	0.62	1.44	2.75	3.12	2.12	2.56	2.94	2.37	4.12
Euro-sterling:											
one month	16.37	6.50	12.00	12.37	12.06	11.75	14.25	14.75	14.37	13.87	14.37
three months	16.12	6.62	12.62	12.12	11.69	11.75	14.00	14.75	14.25	14.06	15.12
six months	14.75	7.12	13.25	11.75	11.19	11.56	13.44	14.12	14.25	14.06	15.00
twelve months	14.50	7.37	13.00	11.62	11.00	11.37	12.62	13.25	13.75	13.50	14.56
Euro-French franc:											
one month	12.37	12.25	10.50	7.62	8.50	11.37	10.75	11.94	11.87	13.12	13.12
three months	12.62	13.25	9.87	8.12	8.25	11.37	11.00	12.06	12.44	13.25	14.00
six months	12.62	14.00	9.87	8.75	8.62	11.50	11.37	12.50	12.94	13.37	14.00
twelve months	12.50	13.25	10.25	9.25	9.25	11.50	11.37	12.25	12.94	13.31	13.87
Euro-yen:											
one month	7.00	0.62	—.69	5.87	4.44	4.62	4.69	6.00	6.87	6.87	5.87
three months	6.62	1.81	0.62	6.00	4.94	5.25	5.75	6.00	7.00	7.31	7.94
six months	6.44	2.75	1.87	5.56	5.56	5.69	6.06	6.37	7.00	7.19	8.06
twelve months	6.25	3.25	2.19	5.87	6.00	6.19	6.12	6.50	7.00	7.00	7.56

Euro-currency bank credits

publicly-announced in period, in millions of dollars

	1976	1977	1978	1979			Jan-Nov	
				Sepr	Octr	Novp	1979	1978
Industrial countries	**11 254**	**17 205**	**28 952**	**1 745**	**2 854**	**4 110**	**23 510**	**27 795**
Canada	885	3 292	5 705	20	—	1 250	1 845	5 705
Denmark	607	868	2 242	25	80	—	1 195	2 224
Finland	300	314	550	—	12	—	92	475
France	586	2 325	1 915	—	1 100	100	2 845	1 915
Greece	323	204	509	500	—	60	700	509
Ireland	433	440	616	37	—	—	687	616
Italy	355	1 024	2 485	565	23	90	2 908	2 335
Japan	370	112	27	—	—	—	—	27
Norway	472	182	1 517	25	60	16	864	1 339
Spain	2 037	1 973	2 426	260	892	150	3 931	2 018
Sweden	440	1 446	1 872	—	20	800	1 143	1 872
United Kingdom	1 671	1 992	3 899	—	—	—	678	3 864
United States	677	826	1 206	95	147	13	1 398	1 131
Other a	2 097	2 207	3 983	218	667	1 631	5 224	3 765
Developing countries	**15 017**	**20 976**	**37 300**	**4 616**	**4 967**	**2 031**	**43 908**	**34 621**
Non-OPEC countries	11 019	13 494	26 902	3 325	3 540	1 507	31 775	24 645
Argentina	957	849	1 461	160	320	310	2 732	1 421
Brazil	3 232	2 814	5 634	70	1 391	—	5 592	5 284
Chile	208	591	1 045	—	295	—	735	1 045
Korea	738	1 265	2 651	186	50	68	2 629	2 580
Malaysia	207	212	858	—	550	200	868	858
Mexico	1 993	2 727	7 250	191	497	350	7 878	6 628
Morocco	641	797	605	—	—	—	500	605
Peru	395	189	—	40	45	8	531	—
Philippines	970	698	2 073	30	207	46	1 539	1 992
Taiwan	219	524	255	378	15	—	1 066	255
Other b	1 458	2 828	5 070	2 270	170	525	7 705	3 977
OPEC countries	3 999	7 481	10 398	1 291	1 427	524	12 133	9 976
Algeria	643	723	2 576	25	—	200	1 831	2 485
Indonesia	469	817	1 118	—	29	—	1 061	1 118
Iran	1 411	1 220	1 107	—	—	—	—	1 107
United Arab Emirates	55	1 086	726	—	—	—	401	726
Venezuela	1 185	1 666	2 054	1 034	1 225	220	6 515	1 824
Other	235	1 969	2 817	232	173	104	2 325	2 716
Communist countries	**2 503**	**3 394**	**3 767**	**700**	**474**	**210**	**7 444**	**3 217**
China	—	—	—	100	120	—	3 595	—
East Germany	215	532	642	200	—	160	796	642
Hungary	300	300	700	250	—	—	260	400
Poland	525	19	374	—	14	50	826	374
Other c	1 463	2 243	2 051	150	340	—	1 967	1 801
International organizations	**74**	**190**	**160**	**150**	—	—	**275**	**160**
TOTAL	**28 850**	**41 765**	**70 179**	**7 211**	**8 295**	**6 351**	**75 137**	**65 793**

a includes multi-national organizations *b* includes regional development organizations *c* includes COMECON institutions *p* preliminary
r revised

International bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
U.S. companies:											
U.S. dollar	7.39	7.95	8.55	8.59	8.67	8.72	8.79	8.83	8.99	9.27	10.10
Swiss franc	5.46	5.31	5.70	5.88	5.93	6.11	6.11	6.12	6.16	6.20	6.48
European companies:											
U.S. dollar	8.56	8.42	9.21	9.20	9.22	9.25	9.29	9.45	9.65	9.86	10.79
German mark	7.38	6.80	6.84	7.06	7.17	7.26	7.25	7.08	7.13	7.16	7.40
Governments:											
U.S. dollar	8.90	8.42	9.12	9.16	9.15	9.16	9.18	9.25	9.43	9.49	10.41

New international bond issues

new issues in period, in millions of dollars

	1976	1977	1978	1979			Jan-Nov	
				Sept	Oct	Nov	1979	1978
By type:								
Euro-bonds, total	**14 328**	**17 771**	**14 125**	**1 613**	**1 018**	**784**	**17 412**	**13 297**
by category of borrower								
U.S. companies	435	1 130	1 122	50	30	300	2 697	1 043
Foreign companies	5 323	7 347	4 540	795	436	335	6 450	4 366
State enterprises	4 138	4 667	3 291	236	371	92	4 508	3 105
Governments	2 239	2 936	3 643	532	—	—	2 273	3 344
International organizations	2 193	1 691	1 529	—	181	57	1 484	1 439
by currency of denomination								
U.S. dollar	9 125	11 627	7 290	990	640	635	11 427	7 030
German mark	2 713	4 131	5 251	308	271	114	3 539	4 751
Dutch guilder	502	452	394	134	13	—	531	394
Canadian dollar	1 407	655	—	52	—	—	425	—
European unit of account	99	28	165	—	—	35	180	165
Other	482	878	1 025	129	94	—	1 310	957
Foreign bonds outside the United States, total	**7 586**	**8 777**	**14 359**	**1 303**	**1 210**	**1 912**	**16 105**	**11 601**
by category of borrower								
U.S. companies	28	40	245	—	—	—	217	245
Foreign companies	1 654	1 421	2 110	308	179	195	3 277	2 025
State enterprises	2 439	2 427	3 163	337	354	416	2 846	2 938
Governments	1 307	2 043	5 771	228	430	1 178	7 392	3 526
International organizations	2 158	2 846	3 070	430	247	122	2 373	2 867
by currency of denomination								
German mark	1 288	2 181	3 789	347	228	1 490	4 676	2 162
Swiss franc	5 359	4 970	5 698	840	629	299	9 299	5 401
Dutch guilder	597	211	385	—	75	—	75	385
Japanese yen	226	1 271	3 826	—	261	61	1 584	3 136
Other	116	144	671	116	17	62	471	527
Foreign bonds in the United States, total	**10 604**	**7 428**	**5 795**	**1 089**	**215**	**325**	**4 442**	**5 689**
by category of borrower								
Canadian entities	6 138	3 022	3 142	734	215	—	2 193	3 142
International organizations	2 275	1 917	459	200	—	125	1 100	459
Other	2 191	2 489	2 194	155	—	200	1 149	2 088
By country of borrower:								
Industrial countries	**24 200**	**23 851**	**24 964**	**3 003**	**1 762**	**2 700**	**29 990**	**21 827**
Australia	1 056	1 074	1 218	—	44	—	470	962
Austria	682	1 384	1 027	155	128	30	1 017	974
Canada	9 336	5 277	4 764	820	215	—	4 110	4 764
Denmark	994	796	1 108	37	91	81	667	993
Finland	342	358	952	63	73	—	612	824
France	2 720	1 945	1 286	122	158	—	1 810	1 286
Japan	2 084	1 979	3 467	828	403	422	5 537	3 193
Netherlands	486	682	251	84	58	57	782	251
New Zealand	413	567	744	110	46	57	553	519
Norway	1 406	1 889	2 751	269	122	110	1 858	2 358
Sweden	1 111	1 574	876	164	—	217	1 464	804
United Kingdom	1 036	1 915	1 365	30	125	—	956	1 365
United States	463	1 353	2 973	50	30	1 421	6 592	1 288
Developing countries	**1 595**	**3 421**	**4 227**	**353**	**253**	**17**	**2 937**	**3 965**
Non-OPEC countries	1 456	2 676	2 684	298	253	17	2 562	2 528
Brazil	268	732	843	70	166	—	858	764
Mexico	448	1 282	568	—	—	—	338	568
Philippines	367	129	170	100	—	—	175	93
OPEC countries	139	745	1 543	55	—	—	375	1 437
Algeria	109	166	721	—	—	—	208	615
Venezuela	—	438	588	55	—	—	55	588
Communist countries	**96**	**248**	**30**	**19**	—	—	**75**	**30**
Hungary	25	174	—	—	—	—	—	—
International organizations	**6 626**	**6 454**	**5 058**	**630**	**428**	**304**	**4 957**	**4 765**
TOTAL	**32 518**	**33 976**	**34 279**	**4 005**	**2 443**	**3 021**	**37 959**	**30 587**

Central bank discount rates

	1976	1977	1978		1979			Current	
	end Dec	end Dec	end Sep	end Dec	end Mar	end Jun	end Sep	Nov 23 1979	effective since
United States	5.25	6.00	8.00	9.50	9.50	9.50	11.00	12.00	Oct 8, 79
Canada	8.50	7.50	9.50	10.75	11.25	11.25	12.25	14.00	Oct 25, 79
Japan	6.50	4.25	3.50	3.50	3.50	4.25	5.25	6.25	Nov 1, 79
United Kingdom	14.25	7.00	10.00	12.50	13.00	14.00	14.00	17.00	Nov 15, 79
Belgium	9.00	9.00	6.00	6.00	6.00	9.00	9.00	10.00	Oct 3, 79
France	10.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	3.50	3.00	3.00	3.00	4.00	4.00	5.00	6.00	Nov 1, 79
Italy	15.00	11.50	10.50	10.50	10.50	10.50	10.50	12.00	Oct 8, 79
Netherlands	6.00	4.50	5.50	6.50	6.50	7.00	8.00	8.50	Nov 1, 79
Austria	4.00	5.50	4.50	4.50	3.75	3.75	3.75	3.75	Jan 25, 79
Denmark	10.00	9.00	8.00	8.00	8.00	9.00	11.00	11.00	Sep 17, 79
Finland	9.25	8.25	7.25	7.25	7.25	7.25	7.25	8.50	Nov 1, 79
Ireland	14.75	6.75	9.60	11.85	11.85	13.70	13.70	13.70	Jun 22, 79
Norway	6.00	6.00	7.00	7.00	7.00	7.00	7.00	7.00	Feb 13, 78
Spain	7.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.00	8.00	6.50	6.50	6.50	6.50	8.00	9.00	Nov 23, 79
Switzerland	2.00	1.50	1.00	1.00	1.00	1.00	1.00	2.00	Nov 5, 79
Brazil	28.00	28.00	33.60	33.00	33.00	33.00	33.00	33.00	Nov, 78
Korea	13.00	14.00	14.50	14.50	14.50	14.50	14.50	14.50	Jun 13, 78
New Zealand	8.50	10.00	11.00	11.00	12.50	13.00	13.00	13.00	Apr 19, 79
Philippines	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	Dec 12, 74
Singapore	4.00	3.50	4.00	4.50	4.50	5.00	5.75	5.75	Aug 20, 79
South Africa	9.00	9.00	8.50	8.50	7.50	7.50	7.00	7.00	Aug 13, 79
Venezuela	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Oct 14, 70

Day-to-day money rates

monthly averages

	1976	1977	1978	1979							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	4.65	5.55	9.91	10.09	9.98	10.23	10.26	10.42	10.88	11.32	13.07
Canada	8.66	6.84	9.44	11.33	10.77	10.88	10.47	11.03	10.96	9.87	12.08
Japan	7.11	5.01	4.57	4.64	4.87	5.12	5.34	5.86	6.73	6.81	6.74
Australia	7.17	9.96	8.40	7.42	7.57	7.57	7.82	8.58	8.74	8.89	8.50
United Kingdom	14.56	4.81	10.00	11.50	10.00	10.80	9.31	12.06	11.66	12.78	11.50
Belgium	7.51	7.48	6.73	5.41	5.31	4.94	7.80	9.66	9.37	8.96	11.49
France	10.44	9.30	6.67	6.77	6.82	7.20	8.01	9.34	10.44	11.00	11.47
Germany	5.03	3.24	3.61	4.33	5.23	5.19	5.62	5.75	6.40	6.70	6.62
Italy	16.75	11.37	11.00	11.12	11.12	11.12	11.25	11.25	11.25	11.25	12.37
Netherlands	6.89	5.27	10.00	7.30	7.19	7.15	7.69	8.81	8.81	9.58	9.41
Austria	n.a.	9.25	5.37	4.50	4.50	5.00	6.25	6.00	5.75	6.50	6.62
Finland	14.53	22.99	9.29	8.29	8.42	8.35	8.35	8.31	8.36	8.68	9.13
Ireland	14.81	8.00	12.12	14.88	15.75	12.88	27.70	15.75	16.12	17.62	16.75
Spain	8.03	7.22	16.75	11.52	16.38	20.93	9.82	13.32	15.34	10.80	8.14
Sweden	10.69	8.91	6.26	6.05	6.01	6.86	7.74	9.16	10.00	9.24	10.75
Switzerland	0.50	0.85	0.00	0.00	0.37	0.75	0.87	0.50	0.87	1.12	0.75
Brazil	25.92	28.44	35.64	35.88	34.58	24.48	23.52	n.a.	n.a.	n.a.	n.a.
Hong Kong	4.81	4.87	9.67	11.01	12.75	12.25	11.25	10.25	12.50	10.37	10.25
Korea	14.00	14.40	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Mexico	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11
Philippines	15.46	14.44	13.22	13.14	14.18	14.66	14.92	14.61	14.56	11.75	10.48
Singapore	3.59	3.59	4.98	5.57	5.88	6.38	6.84	7.11	7.09	6.66	6.40
South Africa	7.59	7.65	7.11	6.21	5.37	5.25	5.15	4.90	4.36	4.12	3.79
Euro-dollars	4.66	6.94	10.80	10.31	10.28	10.25	10.91	10.77	11.34	11.73	13.37

Treasury bill rates

bond-equivalent yields, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	4.41	6.33	9.42	9.50	9.77	9.74	9.84	9.42	9.97	10.62	12.37
Canada	8.14	7.17	10.46	10.92	10.82	10.84	10.78	11.25	11.45	11.64	13.61
Japan	5.68	4.15	3.39	3.39	4.15	4.15	4.15	4.15	5.17	5.17	5.17
Australia	6.73	8.35	8.35	8.65	9.02	9.02	9.02	9.02	9.02	9.02	9.02
United Kingdom	13.98	6.42	12.01	11.80	11.63	11.78	13.69	13.78	13.78	14.01	13.93
Belgium	10.00	9.25	9.25	7.35	7.90	9.00	11.25	12.00	12.00	13.00	14.00
Ireland	14.28	6.74	11.83	12.23	11.39	11.31	11.67	13.48	13.60	13.56	13.72
Italy	17.38	12.81	12.81	11.86	11.51	10.92	11.51	11.62	11.62	11.59	12.87
Netherlands	5.63	6.00	9.50	7.25	6.75	7.25	7.50	8.75	9.00	9.00	9.50
Sweden	9.75	9.21	5.84	5.83	5.83	5.82	5.82	6.60	6.60	6.60	8.70
Brazil	38.58	38.08	41.21	39.26	38.51	38.39	43.95	n.a.	n.a.	n.a.	n.a.
Korea	n.a.	16.88	17.01	17.01	17.01	17.01	17.01	19.53	19.53	19.53	19.53
Mexico	n.a.	n.a.	12.75	13.93	14.03	14.29	14.45	14.89	15.32	n.a.	n.a.
New Zealand	4.00	7.50	10.50	10.60	10.60	10.60	10.60	10.60	10.60	10.60	11.25
Philippines	9.78	10.04	12.08	12.40	12.33	12.57	12.75	12.82	12.77	12.70	12.68
Singapore	2.99	3.17	4.01	4.40	4.39	4.53	4.55	4.60	5.25	5.73	5.70
South Africa	7.94	8.17	7.61	6.23	5.65	5.57	5.49	5.11	4.56	4.49	3.97

Representative money-market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money market instruments, other than Treasury bills, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	4.75	6.84	10.57	9.99	9.84	10.15	9.94	10.20	11.26	11.95	14.72
Canada	8.62	7.25	10.62	11.25	11.25	11.12	11.00	11.62	12.00	11.90	14.62
Japan	6.75	5.89	4.64	5.05	5.01	5.21	5.29	5.81	6.41	7.12	6.97
Australia	9.75	9.75	9.10	9.50	11.00	10.60	10.40	10.00	10.20	10.30	10.65
United Kingdom	14.38	6.50	12.50	12.19	11.62	11.75	14.00	14.19	14.12	14.06	14.75
Belgium	10.50	9.50	9.25	8.05	8.05	9.15	9.75	12.00	12.00	12.50	14.10
France	10.00	9.19	6.44	7.12	7.00	8.62	9.19	10.69	11.37	11.62	12.50
Germany	4.80	3.60	3.70	5.35	5.75	6.40	6.65	6.95	7.45	7.90	9.75
Ireland	14.69	6.75	13.00	14.50	14.37	14.25	18.50	17.87	17.62	17.62	17.50
Italy	16.63	11.75	11.37	11.50	11.50	11.50	11.44	11.62	11.62	11.62	12.75
Netherlands	5.88	6.25	10.50	7.25	7.50	9.12	8.50	9.62	9.62	9.87	10.75
Spain	11.36	12.06	22.80	14.70	19.50	24.60	16.90	16.20	18.80	15.70	11.60
Switzerland	1.84	2.02	0.50	0.87	1.62	2.12	2.00	1.62	2.12	1.62	3.62
Brazil	45.44	46.93	51.47	46.93	46.63	45.88	47.23	n.a.	n.a.	n.a.	n.a.
Hong Kong	5.50	5.73	11.82	11.69	13.12	13.25	12.38	11.50	13.45	13.12	12.75
Korea	16.99	16.88	17.01	17.01	17.01	17.01	17.01	19.53	19.53	19.53	19.53
New Zealand	10.37	11.87	12.00	13.70	14.50	14.25	14.50	15.25	15.50	15.00	16.00
Philippines	15.47	11.96	11.48	12.29	12.46	11.88	11.63	10.76	10.13	9.94	10.01
Singapore	3.75	4.81	7.38	7.31	7.38	7.44	7.63	7.81	8.25	8.75	8.25
South Africa	9.73	9.00	7.85	6.59	6.07	5.97	5.86	5.45	5.03	4.93	4.30

Commercial bank deposit rates

at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	4.70	6.80	10.90	10.00	10.25	10.10	9.90	10.30	11.35	12.10	14.50
Canada	8.00	7.25	10.45	11.20	11.20	11.05	11.05	11.55	11.80	11.90	14.50
Japan	4.50	3.25	2.50	2.50	2.50	3.25	3.25	3.25	4.00	4.00	4.00
Australia	9.75	9.50	8.50	9.00	10.50	10.50	10.00	9.50	9.70	9.90	10.00
United Kingdom	14.13	6.37	12.25	12.12	11.75	11.81	13.75	14.00	14.19	14.06	14.62
Belgium	10.00	9.50	9.87	7.62	8.00	9.13	11.12	12.12	12.13	13.00	14.37
France	9.50	9.00	6.50	6.87	7.25	8.25	9.50	10.50	11.25	11.50	12.50
Germany	4.20	3.40	3.50	4.50	5.25	5.50	6.00	6.50	6.50	7.00	8.25
Italy	17.00	17.00	12.50	12.50	12.50	12.50	12.50	12.50	12.50	12.50	13.02
Netherlands	6.13	7.00	11.62	8.37	8.12	9.50	9.25	10.00	10.12	10.25	11.00
Austria	n.a.	9.00	6.75	5.25	5.50	6.12	7.25	7.50	7.37	8.25	8.75
Denmark	9.00	8.00	7.00	7.00	7.00	7.00	8.00	8.00	8.00	10.00	10.00
Finland	5.75	4.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25
Ireland	n.a.	6.87	12.75	14.37	14.62	14.00	16.75	16.75	17.37	17.25	17.25
Norway	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Spain	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Sweden	7.75	7.75	6.25	6.25	6.25	6.25	6.25	6.75	6.75	6.75	7.75
Switzerland	1.50	1.12	0.12	0.12	0.75	1.25	0.75	0.75	1.25	1.00	2.25
Brazil	45.60	39.60	46.80	45.12	43.80	48.24	46.92	n.a.	n.a.	n.a.	n.a.
Hong Kong	3.25	1.75	4.50	5.75	7.75	7.75	7.75	7.75	9.25	9.25	9.25
Korea	15.00	13.20	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00
Mexico	9.50	9.50	12.00	12.00	12.00	12.00	12.00	12.00	12.39	12.39	12.39
New Zealand	10.25	11.00	12.00	12.80	14.00	13.80	14.10	15.00	14.75	14.50	15.50
Philippines	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50
Singapore	3.75	5.31	7.31	6.50	6.69	6.94	7.00	7.44	8.12	8.44	8.31
South Africa	9.75	8.70	7.30	6.35	5.80	5.70	5.65	5.27	4.87	4.75	4.10
Venezuela	8.00	7.00	7.25	13.50	13.50	13.50	13.50	13.50	13.50	13.50	13.50
Euro-dollars	5.00	7.19	11.69	10.50	10.75	10.44	10.50	11.31	12.12	12.75	15.69

Commercial bank lending rates to prime borrowers

at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	6.00	7.75	11.75	11.75	11.75	11.75	11.50	11.75	12.75	13.50	15.00
Canada	9.25	8.25	11.50	12.00	12.00	12.00	12.00	12.50	12.50	13.00	14.75
Japan	7.42	5.47	4.50	4.44	4.48	4.68	4.87	5.06	5.38	5.80	6.10
Australia	11.50	11.50	11.00	10.75	10.75	10.75	10.75	10.75	10.75	10.75	10.75
United Kingdom	15.50	8.00	13.50	14.00	13.00	13.00	15.00	15.00	15.00	15.00	15.00
Belgium	11.75	10.00	10.00	9.00	9.00	10.00	11.00	12.50	12.50	13.25	14.00
France	11.65	11.35	10.95	10.95	10.95	11.30	11.60	12.20	12.20	12.50	12.65
Germany	6.50	6.00	5.50	6.00	6.75	6.50	7.50	7.75	7.75	8.25	8.75
Italy	21.00	16.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	16.50
Netherlands	8.50	7.00	12.00	9.00	9.00	10.00	10.00	11.00	11.00	11.00	11.37
Austria	n.a.	9.75	8.75	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.50
Denmark	14.00	12.50	10.00	9.50	9.50	10.00	11.00	11.00	11.00	13.00	13.25
Finland	9.71	8.85	7.87	7.81	7.82	7.83	7.83	7.84	7.83	n.a.	n.a.
Ireland	13.25	7.50	13.00	13.00	13.00	13.00	15.50	15.50	15.50	15.50	15.50
Norway	8.33	8.33	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
Spain	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Sweden	11.75	11.75	10.25	10.25	10.25	10.25	10.25	10.75	10.75	10.75	12.75
Switzerland	7.50	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Brazil	30.00	52.05	61.70	62.00	62.00	63.50	61.82	n.a.	n.a.	n.a.	n.a.
Hong Kong	6.00	4.75	8.75	11.00	13.00	13.00	13.00	13.00	14.50	14.50	14.50
Korea	17.00	15.00	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50	18.50
Mexico	15.50	17.00	17.50	17.50	17.50	17.50	17.50	17.50	18.50	18.50	18.50
New Zealand	7.50	8.50	10.75	11.00	11.50	12.00	11.75	11.50	12.00	11.75	13.50
Philippines	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00
Singapore	6.78	7.02	7.65	8.08	8.12	8.12	8.12	8.35	8.78	8.92	9.10
South Africa	12.50	12.50	11.50	10.00	10.00	10.00	10.00	10.00	9.50	9.50	9.50
Venezuela	9.50	9.50	10.25	11.50	11.50	11.50	11.50	11.50	11.50	11.50	11.50
Euro-dollars	5.50	7.56	12.06	10.87	11.12	10.81	10.87	11.68	12.49	13.12	16.06

Domestic government bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979						
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	7.20	7.97	9.00	9.04	9.20	9.07	8.82	8.95	9.05	9.28	10.50
Canada	8.47	8.77	9.68	9.91	9.66	9.68	9.73	9.84	10.15	10.38	11.16
Japan	8.61	6.40	6.40	7.22	7.97	8.02	8.16	7.85	8.14	8.04	8.46
Australia	10.50	9.50	8.90	9.50	10.00	10.00	10.10	10.25	10.15	10.15	10.30
United Kingdom	14.31	10.53	12.75	11.47	11.39	11.89	12.34	12.10	11.76	12.05	12.72
Belgium	9.30	8.76	8.80	8.90	8.99	9.21	9.42	9.63	9.80	9.90	10.58
France	11.04	11.07	9.94	9.74	9.64	9.96	10.71	11.25	11.67	11.56	11.60
Germany	7.28	5.52	6.65	7.15	7.41	7.91	8.04	7.71	7.66	7.65	8.07
Italy	13.92	10.82	10.89	10.87	10.90	10.91	10.90	10.91	10.84	10.81	11.26
Netherlands	8.40	8.11	8.48	8.52	8.58	8.77	9.01	8.98	8.73	8.77	8.83
Austria	8.55	9.00	7.91	7.43	7.59	7.85	8.05	8.16	8.19	8.22	n.a.
Denmark	14.57	16.83	17.27	15.95	15.68	16.85	17.13	17.23	17.35	17.76	17.80
Finland	10.92	10.25	9.19	9.34	9.51	9.41	9.53	9.39	9.41	9.53	9.34
Ireland	15.49	11.30	13.44	13.33	13.46	13.81	15.37	15.99	15.92	15.72	16.64
Norway	7.25	8.37	8.19	8.28	8.31	8.38	8.26	8.29	8.32	8.25	n.a.
Sweden	9.61	9.84	10.09	10.15	10.18	10.20	10.21	n.a.	n.a.	n.a.	n.a.
Switzerland	4.43	3.75	3.03	3.24	3.19	3.19	3.43	3.51	3.51	3.50	3.63
Brazil	38.39	37.30	52.83	46.86	44.33	44.32	46.05	n.a.	n.a.	n.a.	n.a.
New Zealand	8.70	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Philippines	13.41	13.40	13.40	13.40	13.40	13.40	13.40	13.40	13.40	13.40	13.30
South Africa	11.00	10.75	9.85	9.20	9.20	9.53	9.74	9.73	9.55	9.40	9.29
Venezuela	7.04	7.24	7.24	7.31	7.35	7.37	7.36	7.21	7.35	7.36	7.35

Domestic corporate bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979						
	Dec	Dec	Dec	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
United States	7.35	8.30	9.25	9.38	9.55	9.40	9.15	9.20	9.45	9.70	11.00
Canada	9.58	9.71	10.34	10.46	10.30	10.29	10.34	10.52	10.85	11.09	11.97
Japan	8.81	6.68	6.94	7.46	7.84	7.90	8.05	7.80	7.75	7.79	8.11
Australia	12.00	11.00	10.25	10.75	11.00	11.00	11.25	11.35	11.25	11.15	11.40
United Kingdom	15.96	11.88	13.53	12.62	12.08	12.31	13.00	12.76	12.64	12.88	13.40
Belgium	11.88	9.85	9.58	9.38	9.70	9.82	10.13	10.32	10.83	10.92	11.34
France	11.39	12.09	10.27	10.11	10.01	10.30	11.12	11.54	12.03	11.88	11.84
Germany	7.47	5.92	6.80	7.10	7.30	7.60	7.90	8.00	7.80	7.80	8.00
Italy	16.90	10.71	10.12	9.95	10.27	9.84	10.07	10.07	10.04	9.92	9.99
Netherlands	8.32	7.90	8.62	8.38	8.47	8.73	9.12	9.15	8.96	8.82	9.10
Norway	7.65	8.59	8.37	8.62	8.47	8.56	8.36	8.45	8.54	8.63	n.a.
Spain	10.86	11.58	12.17	12.05	12.06	11.69	11.52	11.79	12.04	12.04	11.54
Sweden	9.82	9.83	10.03	9.47	9.51	9.62	9.48	9.16	9.59	9.65	9.75
Switzerland	5.50	4.96	4.85	5.03	5.02	5.15	5.30	5.17	5.24	5.27	5.28
Korea	21.70	19.60	24.00	25.00	25.00	29.00	29.00	29.20	29.20	29.20	29.20
Mexico	15.56	17.56	20.37	21.87	20.74	19.21	19.88	19.51	n.a.	n.a.	n.a.
Venezuela	10.37	10.39	12.43	11.68	12.18	11.70	12.28	12.69	12.71	13.35	13.59

Key to data in tables

I. International markets

Definitions

An *international bond* issue is one sold outside the country of the borrower. It may be either a Euro-bond issue or a foreign bond issue.

A *Euro-bond* issue is one underwritten by an international syndicate and sold principally in countries other than the country of the currency in which the issue is denominated.

A *foreign bond* issue is one underwritten by a syndicate composed of members from one country, sold principally in that country, and denominated in the currency of that country.

A *Euro-currency bank credit* is a loan in a currency which is not native to the country in which the bank office making the loan is located.

Data on *new international bond issue volume* include all publicly announced issues with an original maturity of three years or more, whether publicly or privately placed, but exclude those where the investor is a central bank, monetary authority, or government.

Data on *new Euro-currency bank credit volume* include all publicly announced loans with an original maturity of more than one year. A loan is included in the period in which the lending banks make a commitment covering the amount and terms of the loan to the borrower.

Categories of borrower

U.S. companies include both parent companies and their financing affiliates, either domestic or foreign.

Other companies include private companies domiciled outside the United States and their affiliates.

State enterprises include public agencies.

Governments include central and local governments.

Country of borrower

The country of the borrower is the residence of the borrowing entity, except where the entity is a financing vehicle, in which case the residence of the parent company and or guarantor is used.

International bond yields

Yields are calculated to the nearest day of maturity. Interest on bonds with annual coupons is discounted semiannually for comparability in computation of yield.

The yield indices are simple arithmetic averages of end-of-month secondary market yields for groups of selected straight-debt securities. Yield indices for six categories of bonds have been calculated according to borrower and currency. They are based on issues of good-quality, well-known borrowers. Occasionally the individual issues in each category are changed.

The number of issues represented in each of the indices is as follows:

Long-Term, U.S. companies, U.S. dollar — —ten Euro-bond issues.

Long-term, U.S. companies, Swiss franc — eight foreign bond issues.

Long-term, European companies, U.S. dollar — ten Euro-bond issues.

Long-term, European companies, German mark — ten Euro-bond issues.

Long-term, governments, U.S. dollar — six Euro-bond issues (governments of Italy, Denmark, and France).

Euro-currency deposit rates

All data are prime banks' bid rates for deposits in London. Offer rates commonly used as a basis for Euro-dollar lending are generally .125% above bid rates.

II. Domestic markets

Day-to-day money rates

Austria — day-to-day interbank rate.

Australia — approximate effective interest rate in the authorized short-term money market.

Belgium — Interbank call money.

Brazil — Interbank overnight market for Banco do Brasil checks.

Canada — chartered banks' day-to-day loans.

Finland — Bank of Finland call money.

France — interbank call money against private paper.

Germany — Interbank call money.

Hong Kong — Interbank 24-hour call rate.

Ireland — interbank call money.

Italy — Interbank 48 hour call money.

Japan — Tokyo interbank call money, overnight lenders rate until December 1974. New series as of January 1975, unconditional lenders rate.

Korea — call money.

Mexico — financiera bonds in bearer form available to corporations, redeemable on demand. Higher rates available to individuals.

Netherlands — open-market call money.

Philippines — interbank call money.

Singapore — interbank overnight money.

South Africa — National Finance Corporation call money.

Spain — day-to-day interbank rate.

Sweden — interbank call money.

Switzerland — call money.

United Kingdom — call money.

United States — effective Federal funds rate.

Euro-dollars — prime banks' bid rate for overnight money.

Treasury bill rates

Australia — new issues of 13-week Treasury notes.

Belgium — 3-month Treasury certificates.

Brazil — 91-day Treasury bills (LTN), at tender.

Canada — 3-month Treasury bills at tender.

Ireland — 3-month Central Bank Exchequer bills.

Italy — 6-month Treasury bills.

Japan — 60- to 62-day noninterest-bearing discount government bills.

Korea — 3-month Treasury bills sold by Korean Central Bank.

Mexico — 3-month Federal Treasury bills.

Netherlands — 3-month Treasury bills.

New Zealand — 3-month Treasury bills.

Philippines — 91-day Treasury bills at tender.

Singapore — 91-day Treasury bills at tender.

South Africa — 3-month Treasury bills at tender.

Sweden — new issues of 3-month Treasury bills.

United Kingdom — 91-day Treasury bills at tender.

United States — 3-month Treasury bills.

Representative money-market rates

Australia — 3-month prime finance company paper.

Belgium — 4-month Fonds des Rentes certificates.

Brazil — 90-day first class commercial paper of major financial groups.

Canada — 3-month prime finance company paper.

France — 3-month interbank money against private paper.

Germany — 3-month interbank deposits.

Hong Kong — 3-month interbank deposits.

Ireland — 3-month interbank deposits.

Italy — 3-month interbank deposits.

Japan — Tokyo interbank call money, unconditional, lender's rate until December 1974. New series as of January 1975, 3-month repurchase agreements.

Korea — 3-month financial bill.

Netherlands — 3-month municipal loans until December 1976. New series as of January 1977, 3-month interbank deposits.

New Zealand — 90-day commercial bills.

Philippines — 90-day promissory notes.

Singapore — 3-month bank acceptances.

South Africa — 90-day bank acceptances.

Spain — 1- to 2-month interbank deposits.

Switzerland — 3-month interbank deposits.

United Kingdom — 3-month interbank deposits.

United States — 3-month prime industrial paper.

Commercial bank deposit rates

Austria — 3-month time deposits.

Australia — 3-month certificates of deposit.

Belgium — special maximum rate for 3-month time deposits in large amounts.

Brazil — 6-month non-negotiable certificates of deposit of investment banks. Legal maximum rates until April 1975, free rate subsequently.

Canada — 3-month time deposits.

Denmark — time deposits of 3-months' notice.

Finland — time deposits of six-month notice.

France — 3-month time deposits of FF. 1,000,000.

Germany — 3-month time deposits in large amounts.

Hong Kong — 3-month certificates of deposit. Rate set by the Hong Kong Exchange Banks' Association.

Ireland — 3-month time deposits.

Italy — 3-month time deposits of Lit. 100 million or more.

Key to data in tables – continued

Japan — 3-month time deposits.

Korea — 3-month time deposits.

Mexico — 3-month certificates of deposit issued by financieras to corporations for amounts over Ps. 1 million. Higher rates available to individuals.

Netherlands — 3-month time deposits in large amounts.

New Zealand — 6-month transferable certificates of deposit.

Norway — 3-month time deposits. Higher rates may be negotiated for 12-month or more time deposits in large amounts.

Philippines — 3-month time deposits.

Singapore — 3-month time deposits until May 1975, 3-month certificates of deposit thereafter.

South Africa — 3-month time deposits at merchant bank until May 1975. Negotiable certificates of deposit from June 1975.

Spain — maximum legal rate for 3-month deposits.

Sweden — deposits at 6-months' notice.

Switzerland — 3-month time deposits.

United Kingdom — 3-month time deposits.

United States — 3-month negotiable certificates of deposit issued by Morgan Guaranty Trust Company.

Venezuela — 6-month certificates of deposit for amounts above Bv. 250,000 until December 1977. New series as of January 1979, 6-month certificates of deposits for domestic borrowers for amounts above Bv. 1,500,000.

Euro-dollars — prime banks' bid rate for 3-month deposits in London.

Commercial bank lending rates to prime borrowers

Austria — overdraft rate for prime borrowers, including commission.

Australia — approximate overdraft rate for prime borrowers. Rate for prime borrowers usually .25% to .75% below the maximum overdraft rate; rate shown is .5% below.

Belgium — prime overdraft rate.

Brazil — commercial bank legal maximum rate (discount basis) for maturities up to 60 days until August 1977. In addition, compensating balances were required. New series as of September 1977, weighted average investment bank lending rates.

Canada — prime rate.

Denmark — approximate rate for loans and advances to prime borrowers.

Finland — average rates on total commercial bank lending.

France — overdraft rate for prime borrowers, including a commission of .05% per month on highest debit balance during the month.

Germany — approximate effective overdraft rate for prime borrowers.

Hong Kong — prime rate.

Ireland — AAA corporate borrowing rate.

Italy — unsecured overdraft rate for prime borrowers.

Japan — average rate on loans and discounts of city banks, computed by the Bank of Japan until December 1974. New series as of January 1975, average contracted interest rate for short-term loans of city banks. In addition, compensating balances may be required.

Korea — prime rate.

Mexico — major bank prime rate, subject to legal maximum. In addition, compensating balances are required.

Netherlands — overdraft rate for prime borrowers, including commission.

New Zealand — overdraft rate for prime borrowers.

Norway — overdraft rate, including a commission of .333% prior to July 1976, .25% thereafter, per quarter on the total line of credit.

Philippines — maximum legal rate, for unsecured loans exclusive of service fee.

Singapore — most common overdraft rate, major banks.

South Africa — unsecured overdraft rate for prime borrowers.

Spain — maximum legal rate for discounting commercial bills plus a commission of 1% per annum. In addition, compensating balances may be required.

Sweden — overdraft rate for prime borrowers, including a fee of 1% from January 1972 to March 1976, .75% from April 1976 on total amount of credit authorized.

Switzerland — overdraft rate for prime borrowers, including commission of .25% per quarter on highest debit balance in quarter.

United Kingdom — unsecured overdraft rate for prime borrowers.

United States — prime rate of Morgan Guaranty Trust Company. In addition, compensating balances are required.

Venezuela — representative rate for prime borrowers until December 1978. New series as of January 1979, similar rate for domestic prime borrowers only.

Euro-dollars — representative average rate for 3-month loans to prime borrowers.

Domestic government bond yields

Austria — Austrian National Bank average yield on all outstanding government bonds.

Australia — 20-year government bonds.

Belgium — Belgian National Bank average yield on government bonds maturing in more than five years.

Brazil — 5-year inflation-indexed 8% Treasury Readjustable Obligations (ORTN).

Canada — Bank of Canada average yield on all direct government bonds due or callable in 10 years or more.

Denmark — 5% government bond of 2007 until December 1976. New series as of January 1977, 10% government bonds with maturity of 7 to 8 years.

Finland — rate of interest at issue on central government bonds intended for public subscription, weighted by sales of bonds in the latter half of each month.

France — Institut National de la Statistique et des Etudes Economiques (INSEE) yield on public and semi-public sector bonds.

Germany — Frankfurter Allgemeine Zeitung (FAZ) 7% public authority bond average until September 1978. New series as of October 1978, FAZ 10-year public authority bond average.

Ireland — 15-year government bonds.

Italy — average of yields on six outstanding bonds of public-sector entities, new series as of January 1977.

Japan — average yield on outstanding maturities of 6.5% national government bonds until December 1974. New series as of January 1975, secondary market yield for the 6.1% due 1988 national government bond.

Netherlands — Central Bureau of Statistics (CBS) average yield on three latest 7% to 7.75% government bonds.

New Zealand — average yield on government bonds maturing after 10 years.

Norway — 5% government bond of 1996.

Philippines — Central Bank 5-year Certificate of Indebtedness, regular issue.

South Africa — 25-year government bonds.

Sweden — 15-year government bonds.

Switzerland — Swiss Confederation bond average.

United Kingdom — F.T. (Financial Times) Actuaries 20-year government stock until December 1975. New series as of January 1976, F.T. Actuaries 25-year government stock.

United States — Morgan Guaranty 20-year U.S. Government Bond Index.

Venezuela — Banco Central average yield on public-sector bond issues.

Domestic corporate bond yields

Australia — long-term secured debentures, indicated by Australian United Corporation.

Belgium — Belgian National Bank average yield on private corporate bonds maturing in more than five years.

Canada — McLeod, Young, Weir Co. Ltd., average yield on ten industrial bonds.

France — INSEE tax-adjusted average yield on outstanding private corporate bonds.

Germany — FAZ 6% industrial bond average until September 1978 New series as of October 1978, Bundesbank average yield on industrial bonds

Italy — average of yields on six outstanding bonds of leading Italian industrial companies; new series as of January 1977.

Japan — average of yields on outstanding Nippon Telegraph & Telephone interest-bearing yen debentures until December 1974. New series as of January 1975, secondary market yield for NTT bond maturing April 1987.

Korea — average of yields on 3-year corporate bonds guaranteed by local banks.

Mexico — 9% Teléfonos de Mexico bond, series AA, of 1990 until December 1976. Average of yields of six outstanding Telefonos de Mexico bonds from January 1977.

Netherlands — CBS average yield on three 6% to 6.5% corporate bonds.

Norway — 5.75% Dalen Portland-Cement bond of 1969-1984.

Spain — average yield for a selected group of electricity companies.

Sweden — Central Satistical Bureau average yield on industrial bonds.

Switzerland — average yield on outstanding bonds of five leading Swiss companies.

United Kingdom — F.T. (Financial Times) Actuaries 20-year debentures and loans.

United States — Salomon Brothers index of new issue yields for Aa industrial bonds with five-year call protection.

Venezuela — average of yields on 15-year bond issues of Electricidad de Caracas.

Morgan Guaranty Trust Company of New York

23 Wall Street, New York, N.Y. 10015

Midtown banking offices

522 Fifth Avenue at 44th Street, New York, NY 10036
616 Madison Avenue at 58th Street, New York, NY 10022
40 Rockefeller Plaza at 50th Street, New York, NY 10020

Trust and Investment Division

9 West 57th Street, New York, NY 10019

Banking offices abroad

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